

# Intermec Technologies Corporation

## IM5r3

Project  
P-INMC015

Report No. INMC0602

Report Prepared By



[www.nwemc.com](http://www.nwemc.com)  
1-888-EMI-CERT

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# EMC Test Report



22975 NW Evergreen Parkway  
Suite 400  
Hillsboro, Oregon 97124

### Certificate of Test

Last Date of Test: October 05, 2010  
Intermec Technologies Corporation  
Model: IM5r3

Emissions			
Test Description	Specification	Test Method	Pass/Fail
Spurious Radiated Emissions	FCC 15.247:2010	ANSI C63.10:2009	Pass

**Modifications made to the product**  
See the Modifications section of this report

#### Test Facility

The measurement facility used to collect the data is located at:

Northwest EMC, Inc.  
9349 W Broadway Ave.  
Brooklyn Park, MN 55445

Phone: (763) 425-2281      Fax: (763) 424-3469

This site has been fully described in a report filed with and accepted by the FCC (Federal Communications Commission) and Industry Canada (Site filing #2834E-1).

Approved By:  
  
Don Fecteau, IS Manager



NVLAP Lab Code: 200881-0

*This report must not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government of the United States of America.*

*Product compliance is the responsibility of the client, therefore the tests and equipment modes of operation represented in this report were agreed upon by the client, prior to testing. This Report may only be duplicated in its entirety. The results of this test pertain only to the sample(s) tested. The specific description is noted in each of the individual sections of the test report supporting this certificate of test.*

Revision Number	Description	Date	Page Number
00	None		

**Barometric Pressure**

The recorded barometric pressure has been normalized to sea level.



# Accreditations and Authorizations

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## FCC

Accredited by NVLAP for performance of FCC radio, digital, and ISM device testing. Our Open Area Test Sites, certification chambers, and conducted measurement facilities have been fully described in reports filed with the FCC and accepted by the FCC in letters maintained in our files. Northwest EMC has been accredited by ANSI to ISO / IEC Guide 65 as a product certifier. We have been designated by the FCC as a Telecommunications Certification Body (TCB). This allows Northwest EMC to certify transmitters to FCC specifications in accordance with 47 CFR 2.960 and 2.962.



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## NVLAP

Northwest EMC, Inc. is accredited under the United States Department of Commerce, National Institute of Standards and Technology, and National Voluntary Laboratory Accreditation Program for satisfactory compliance with the requirements of ISO/IEC 17025 for Testing Laboratories. The NVLAP accreditation encompasses Electromagnetic Compatibility Testing in accordance with the European Union EMC Directive 2004/108/EC, and ANSI C63.4. Additionally, Northwest EMC is accredited by NVLAP to perform radio testing in accordance with the European Union R&TTE Directive 1999/5/EEC, the requirements of FCC, and the RSS radio standards for Industry Canada.



NVLAP LAB CODE 200629-0  
NVLAP LAB CODE 200630-0  
NVLAP LAB CODE 200676-0  
NVLAP LAB CODE 200761-0  
NVLAP LAB CODE 200881-0

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## Industry Canada

Accredited by NVLAP for performance of Industry Canada RSS and ICES testing. Our Open Area Test Sites and certification chambers comply with RSS-Gen, Issue 2 and have been filed with Industry Canada and accepted. Northwest EMC has been accredited by ANSI to ISO / IEC Guide 65 as a product certifier. We have been designated by NIST and recognized by Industry Canada as a Certification Body (CB) per the APEC Mutual Recognition Arrangement (MRA). This allows Northwest EMC to certify transmitters to Industry Canada technical requirements. (*Site Filing Numbers - Hillsboro: 2834D-1, 2834D-2, Sultan: 2834C-1, Irvine: 2834B-1, 2834B-2, Brooklyn Park: 2834E-1*)



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## CAB

Designated by NIST and validated by the European Commission as a Conformity Assessment Body (CAB) to conduct tests and approve products to the EMC directive and transmitters to the R&TTE directive, as described in the U.S. - EU Mutual Recognition Agreement.



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## NEMKO

Assessed and accredited by NEMKO (Norwegian testing and certification body) for European emissions and immunity testing. As a result of NEMKO's laboratory assessment, they will accept test results from Northwest EMC, Inc. for product certification (Authorization No. ELA 119).



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## Australia/New Zealand

The National Association of Testing Authorities (NATA), Australia has been appointed by the ACA as an accreditation body to accredit test laboratories and competent bodies for EMC standards. Accredited test reports or assessments by competent bodies must carry the NATA logo. Test reports made by an overseas laboratory that has been accredited for the relevant standards by an overseas accreditation body that has a Mutual Recognition Agreement (MRA) with NATA are also accepted as technical grounds for product conformity. The report should be endorsed with the respective logo of the accreditation body (NVLAP).



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## VCCI

Accepted as an Associate Member to the VCCI, Acceptance No. 564. Conducted and radiated measurement facilities have been registered in accordance with Regulations for Voluntary Control Measures, Article 8. (Registration Numbers. - Hillsboro: C-1071, R-1025, G-84, C-2687, T-1658, and R-2318, Irvine: R-1943, G-85, C-2766, and T-1659, Sultan: R-871, G-83, C-1784, and T-1511, Brooklyn Park: R-3125, G-86, G-141, C-3464, and T-1634).



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## BSMI

Northwest EMC has been designated by NIST and validated by C-Taipei (BSMI) as a CAB to conduct tests as described in the APEC Mutual Recognition Agreement (US0017). License No.SL2-IN-E-1017.



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## GOST

Northwest EMC, Inc. has been assessed and accredited by the Russian Certification bodies Certinform VNIINMASH, CERTINFO, SAMTES, and Federal CHEC, to perform EMC and Hygienic testing for Information Technology Products. As a result of their laboratory assessment, they will accept test results from Northwest EMC, Inc. for product certification



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## KCC

Northwest EMC, Inc is a CAB designated by MRA partners and recognized by Korea. (Assigned Lab Numbers: Hillsboro: US0017, Irvine: US0158, Sultan: US0157)



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## VIETNAM

Vietnam MIC has approved Northwest EMC as an accredited test lab. Per Decision No. 194/QD-QLCL (dated December 15, 2009), Northwest EMC test reports can be used for Vietnam approval submissions.



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## SCOPE

For details on the Scopes of our Accreditations, please visit:

<http://www.nwemc.com/accreditations/>



# Northwest EMC Locations



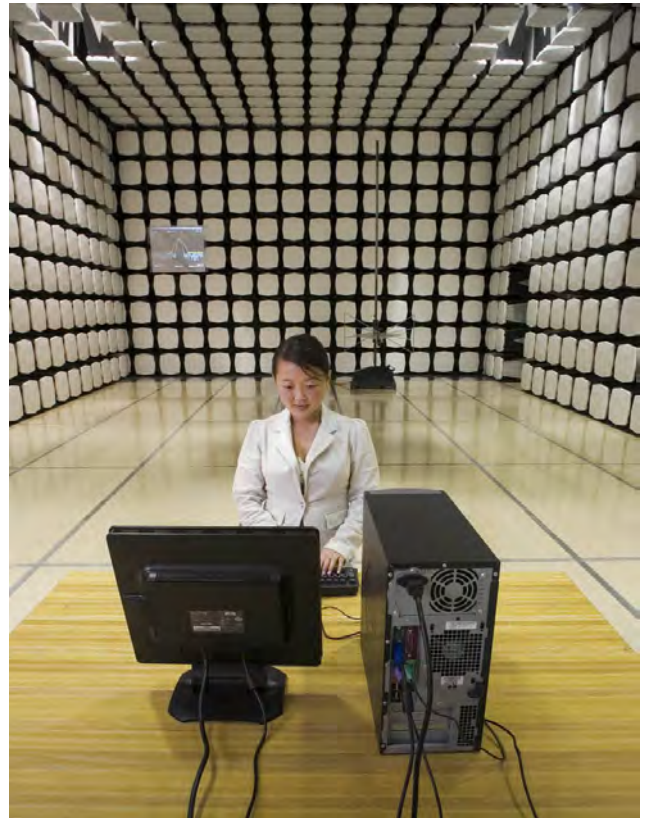
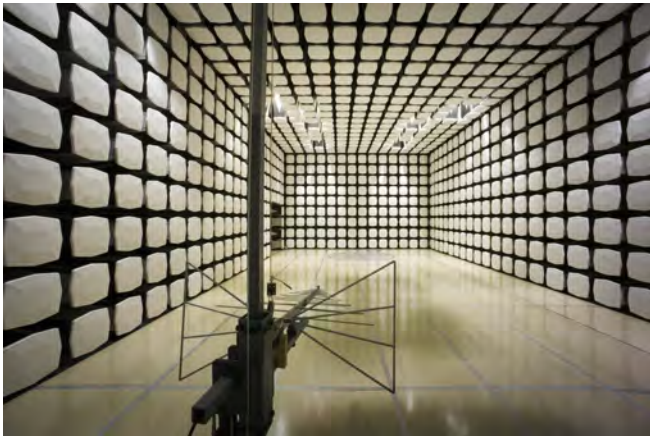
Oregon  
Labs EV01-EV12  
22975 NW Evergreen Pkwy  
Suite 400  
Hillsboro, OR 97124  
(503) 844-4066

California  
Labs OC01-OC13  
41 Tesla  
Irvine, CA 92618  
(949) 861-8918

Minnesota  
Labs MN01-MN08  
9349 W Broadway Ave.  
Brooklyn Park,  
MN 55445  
(763) 425-2281

Washington  
Labs SU01-SU07  
14128 339<sup>th</sup> Ave. SE  
Sultan, WA 98294  
(360) 793-8675

New York  
Labs WA01-WA04  
4939 Jordan Rd.  
Elbridge, NY 13060  
(315) 685-0796



**Party Requesting the Test**

<b>Company Name:</b>	Intermec Technologies Corporation
<b>Address:</b>	6001 36th Avenue West
<b>City, State, Zip:</b>	Everett, WA 98203-1264
<b>Test Requested By:</b>	Sean MacKellar
<b>Model:</b>	IM5r3
<b>First Date of Test:</b>	October 1, 2010
<b>Last Date of Test:</b>	October 5, 2010
<b>Receipt Date of Samples:</b>	October 1, 2010
<b>Equipment Design Stage:</b>	Production
<b>Equipment Condition:</b>	No Damage

**Information Provided by the Party Requesting the Test****Functional Description of the EUT (Equipment Under Test):**

Frequency Hopping Spread Spectrum (FHSS) radio operating with up to +36 dBm EIRP

**Testing Objective:**

To demonstrate compliance of a new antenna type and AC power supply under FCC 15.247

**CONFIGURATION 2 INMC0602****Software/Firmware Running during test**

Description	Version
Hyperterminal	N/A

**EUT**

Description	Manufacturer	Model/Part Number	Serial Number
IM5r3	Intermec Technologies Corporation	IM5r3	21711052511
Antenna Linear	Huber Suhner	SPA 915/70/8/0/V	00111

**Peripherals in test setup boundary**

Description	Manufacturer	Model/Part Number	Serial Number
Laptop	Dell	PP18L	28863562501
DC Power Brick	Dell	PA-1650-05D2	CN-0F7970-71615-79H-0FFD
DC Power Brick EUT	Intermec Technologies Corporation	AE34	885896

**Cables**

Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
Serial	Yes	3m	No	IM5r3	Laptop
AC Power	No	1.8m	No	AC Mains	DC Power Brick
DC Power	No	1.8m	Yes	DC Power Brick	Laptop
AC Power	No	1.8m	No	AC Mains	DC Power Brick EUT
DC Power	No	1.9m	No	DC Power Brick EUT	IM5r3
N to SMA	Yes	9m	No	IM5r3	Antenna

PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.



**CONFIGURATION 3 INMC0602****Software/Firmware Running during test**

Description	Version
Hyperterminal	N/A

**EUT**

Description	Manufacturer	Model/Part Number	Serial Number
IM5r3	Intermec Technologies Corporation	IM5r3	21711052511
Antenna 7FT	NeWave	XRAB-N1	D/C 20091116

**Peripherals in test setup boundary**

Description	Manufacturer	Model/Part Number	Serial Number
Laptop	Dell	PP18L	28863562501
DC Power Brick	Dell	PA-1650-05D2	CN-0F7970-71615-79H-0FFD
DC Power Brick EUT	Intermec Technologies Corporation	AE34	885896

**Cables**

Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
Serial	Yes	3m	No	IM5r3	Laptop
AC Power	No	1.8m	No	AC Mains	DC Power Brick
DC Power	No	1.8m	Yes	DC Power Brick	Laptop
AC Power	No	1.8m	No	AC Mains	DC Power Brick EUT
DC Power	No	1.9m	No	DC Power Brick EUT	IM5r3
N to SMA	Yes	9m	No	IM5r3	Antenna

PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.

**CONFIGURATION 4 INMC0602****Software/Firmware Running during test**

Description	Version
Hyperterminal	N/A

**EUT**

Description	Manufacturer	Model/Part Number	Serial Number
IM5r3	Intermec Technologies Corporation	IM5r3	21711052511
Antenna Ultra Low	Kathrein	52010092	G0D1400048

**Peripherals in test setup boundary**

Description	Manufacturer	Model/Part Number	Serial Number
Laptop	Dell	PP18L	28863562501
DC Power Brick	Dell	PA-1650-05D2	CN-0F7970-71615-79H-0FFD
DC Power Brick EUT	Intermec Technologies Corporation	AE34	885896

**Cables**

Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
Serial	Yes	3m	No	IM5r3	Laptop
AC Power	No	1.8m	No	AC Mains	DC Power Brick
DC Power	No	1.8m	Yes	DC Power Brick	Laptop
AC Power	No	1.8m	No	AC Mains	DC Power Brick EUT
DC Power	No	1.9m	No	DC Power Brick EUT	IM5r3
N to SMA	Yes	9m	No	IM5r3	Antenna

PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.

<b>Equipment modifications</b>					
<b>Item</b>	<b>Date</b>	<b>Test</b>	<b>Modification</b>	<b>Note</b>	<b>Disposition of EUT</b>
1	10/2/2010	Spurious Radiated Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
2	10/5/2010	Spurious Radiated Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	Scheduled testing was completed.

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data. The test data represents the configuration / operating mode/ model that produced the highest emission levels as compared to the specification limit.

**MODES OF OPERATION**

Transmitting PRASK modulation, EPC Tags.

**POWER SETTINGS INVESTIGATED**

120VAC/60Hz

**CONFIGURATIONS INVESTIGATED**

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**FREQUENCY RANGE INVESTIGATED**

Start Frequency	30 MHz	Stop Frequency	10 GHz
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**SAMPLE CALCULATIONS**

Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation

**TEST EQUIPMENT**

Description	Manufacturer	Model	ID	Last Cal.	Interval
Attenuator, 6 dB, 'SMA'	SM Electronics	SA18H-06	REM	7/9/2010	13 mo
Attenuator, 20 dB, 'SMA'	SM Electronics	SA6-20	REO	7/9/2010	13 mo
Attenuator, 10db, 'SMA'	S.M. Electronics	SA18H-10	REN	7/9/2010	13 mo
.5-1 GHz Notch Filter	K&L Microwave	3TNF-500/1000-N/N	HFT	1/8/2010	13 mo
High Pass Filter 0-425 MHz	Micro-Tronics	LPM50003	HGO	7/9/2010	13 mo
High Pass Filter	Micro-Tronics	HPM50108	HGP	7/9/2010	13 mo
Antenna, Horn	ETS	3160-07	AXP	NCR	0 mo
Pre-Amplifier	Miteq	AMF-6F-08001200-30-10P	AVV	7/19/2010	13 mo
MN05 Cables	ESM Cable Corp.	Standard Gain Horn Cables	MNJ	7/19/2010	13 mo
MN05 Cables	ESM Cable Corp.	Double Ridge Guide Horn Cables	MNI	7/19/2010	13 mo
Antenna, Horn (DRG)	ETS Lindgren	3115	AIP	12/22/2009	24 mo
Pre-Amplifier	Miteq	AMF-3D-00100800-32-13P	AVX	7/19/2010	13 mo
Pre-Amplifier	Miteq	AM-1616-1000	AVY	7/19/2010	13 mo
MN05 Cables	ESM Cable Corp.	Bilog Cables	MNH	1/15/2010	13 mo
Antenna, Biconilog	ETS Lindgren	3142D	AXO	12/30/2009	13 mo
Spectrum Analyzer	Agilent	E4446A	AAT	2/24/2010	12 mo

**MEASUREMENT BANDWIDTHS**

	Frequency Range (MHz)	Peak Data (kHz)	Quasi-Peak Data (kHz)	Average Data (kHz)
	0.01 - 0.15	1.0	0.2	0.2
	0.15 - 30.0	10.0	9.0	9.0
	30.0 - 1000	100.0	120.0	120.0
	Above 1000	1000.0	N/A	1000.0

Measurements were made using the IF bandwidths and detectors specified. No video filter was used, except in the case of the FCC Average Measurements above 1GHz. In that case, a peak detector with a 10Hz video bandwidth was used.

**MEASUREMENT UNCERTAINTY**

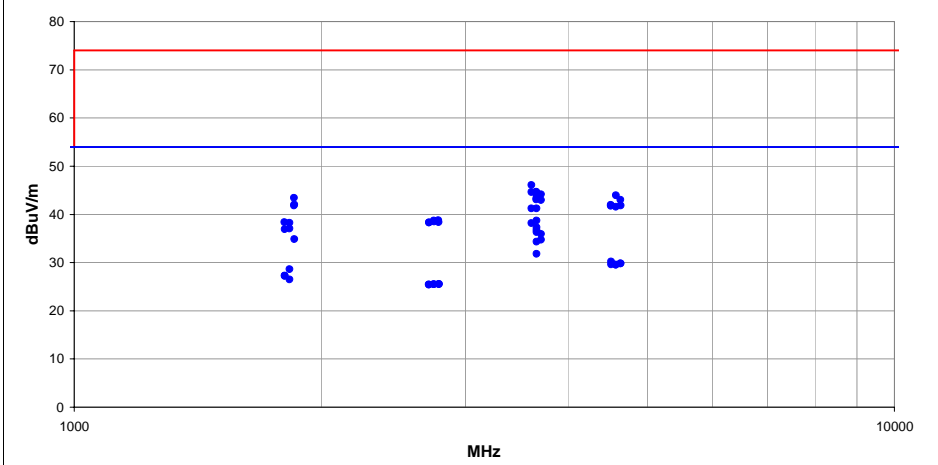
A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty for radiated emissions measurements is less than +/- 4 dB, and for conducted emissions measurements is less than +/- 2.7 dB. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for measurement uncertainty are available upon request.

**TEST DESCRIPTION**

The highest gain of each type of antenna to be used with the EUT was tested. The EUT was configured for low, mid, and high band transmit frequencies. For each configuration, the spectrum was scanned throughout the specified range. In addition, measurements were made in the restricted bands to verify compliance. While scanning, emissions from the EUT were maximized by rotating the EUT on a turntable, adjusting the position of the EUT and the EUT antenna in three orthogonal axes, and adjusting measurement antenna height and polarization, and manipulating the EUT antenna in 3 orthogonal planes (per ANSI C63.10:2009). A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

<b>Work Order:</b>	INMC0602	<b>Date:</b>	10/02/10	<i>Trevor Buls</i>
<b>Project:</b>	P-INMC015	<b>Temperature:</b>	22.59°C	
<b>Job Site:</b>	MN05	<b>Humidity:</b>	41.49	
<b>Serial Number:</b>	21711052511	<b>Barometric Pres.:</b>	1029.9	
<b>EUT:</b>	IM5r3			
<b>Configuration:</b>	4 - INMC0602			
<b>Customer:</b>	Intermec Technologies Corporation			
<b>Attendees:</b>	None			
<b>EUT Power:</b>	120VAC/60Hz			
<b>Operating Mode:</b>	Transmitting PRASK modulation, EPC Tags.			
<b>Deviations:</b>	None			
<b>Comments:</b>	Antenna Port 4 is worst case. Using Kathrein Ultra-Low Gain antenna.			

<b>Test Specifications</b> FCC 15.247:2010	<b>Test Method</b> ANSI C63.10:2009						
<b>Run #</b>	16	<b>Test Distance (m)</b>	3	<b>Antenna Height(s)</b>	1-4m	<b>Results</b>	Pass



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
1854.542	47.6	-5.8	1.3	238.0	3.0	0.0	Horz	AV	0.0	41.8	54.0	-12.2	EUT on Side, High 927.25 MHz, Pwr 3226
3611.067	42.5	-1.3	1.4	34.0	3.0	0.0	Horz	AV	0.0	41.2	54.0	-12.8	EUT on Side, Low 902.75 MHz, Pwr 3293
3661.038	39.6	-0.9	1.2	5.0	3.0	0.0	Vert	AV	0.0	38.7	54.0	-15.3	EUT on Side, Mid 915.25 MHz, Pwr 3204
3611.033	39.4	-1.3	1.3	29.0	3.0	0.0	Vert	AV	0.0	38.1	54.0	-15.9	EUT on Side, Low 902.75 MHz, Pwr 3293
3661.063	38.2	-0.9	1.0	315.0	3.0	0.0	Horz	AV	0.0	37.3	54.0	-16.7	EUT Vertical, Mid 915.25 MHz, Pwr 3204
3661.005	37.7	-0.9	1.3	5.0	3.0	0.0	Horz	AV	0.0	36.8	54.0	-17.2	EUT on Side, Mid 915.25 MHz, Pwr 3204
3661.038	37.2	-0.9	1.0	22.0	3.0	0.0	Vert	AV	0.0	36.3	54.0	-17.7	EUT Vertical, Mid 915.25 MHz, Pwr 3204
3709.025	36.5	-0.6	1.3	347.0	3.0	0.0	Horz	AV	0.0	35.9	54.0	-18.1	EUT on Side, High 927.25 MHz, Pwr 3226
1854.558	40.6	-5.8	1.3	331.0	3.0	0.0	Vert	AV	0.0	34.8	54.0	-19.2	EUT on Side, High 927.25 MHz, Pwr 3226
3709.025	35.3	-0.6	1.4	332.0	3.0	0.0	Vert	AV	0.0	34.7	54.0	-19.3	EUT on Side, High 927.25 MHz, Pwr 3226
3661.030	35.2	-0.9	1.2	161.0	3.0	0.0	Vert	AV	0.0	34.3	54.0	-19.7	EUT Horizontal, Mid 915.25 MHz, Pwr 3204
3661.005	32.7	-0.9	1.0	301.0	3.0	0.0	Horz	AV	0.0	31.8	54.0	-22.2	EUT Horizontal, Mid 915.25 MHz, Pwr 3204
4513.758	28.0	2.2	1.3	323.0	3.0	0.0	Vert	AV	0.0	30.2	54.0	-23.8	EUT on Side, Low 902.75 MHz, Pwr 3293
4638.350	28.9	2.9	2.9	113.0	3.0	0.0	Horz	AV	0.0	29.8	54.0	-24.2	EUT on Side, High 927.25 MHz, Pwr 3226
4633.500	26.9	2.9	1.3	177.0	3.0	0.0	Vert	AV	0.0	29.8	54.0	-24.2	EUT on Side, High 927.25 MHz, Pwr 3226
4513.858	27.4	2.2	1.3	29.0	3.0	0.0	Horz	AV	0.0	29.6	54.0	-24.4	EUT on Side, Low 902.75 MHz, Pwr 3293
4576.492	26.9	2.6	3.0	181.0	3.0	0.0	Horz	AV	0.0	29.5	54.0	-24.5	EUT on Side, Mid 915.25 MHz, Pwr 3204
4576.150	26.9	2.6	1.3	292.0	3.0	0.0	Vert	AV	0.0	29.5	54.0	-24.5	EUT on Side, Mid 915.25 MHz, Pwr 3204
1830.542	34.6	-6.0	1.0	205.0	3.0	0.0	Horz	AV	0.0	28.6	54.0	-25.4	EUT on Side, Mid 915.25 MHz, Pwr 3204
1805.550	33.5	-6.2	1.3	149.0	3.0	0.0	Horz	AV	0.0	27.3	54.0	-26.7	EUT on Side, Low 902.75 MHz, Pwr 3293
1805.450	33.4	-6.2	1.3	197.0	3.0	0.0	Vert	AV	0.0	27.2	54.0	-26.8	EUT on Side, Low 902.75 MHz, Pwr 3293
1830.542	32.5	-6.0	1.3	156.0	3.0	0.0	Vert	AV	0.0	26.5	54.0	-27.5	EUT on Side, Mid 915.25 MHz, Pwr 3204
3611.092	47.3	-1.3	1.4	34.0	3.0	0.0	Horz	PK	0.0	46.0	74.0	-28.0	EUT on Side, Low 902.75 MHz, Pwr 3293
2784.300	29.4	-3.8	1.3	235.0	3.0	0.0	Vert	AV	0.0	25.6	54.0	-28.4	EUT on Side, High 927.25 MHz, Pwr 3226
2745.683	29.2	-3.7	2.5	196.0	3.0	0.0	Vert	AV	0.0	25.5	54.0	-28.5	EUT on Side, Mid 915.25 MHz, Pwr 3204
2745.717	29.2	-3.7	1.3	12.0	3.0	0.0	Horz	AV	0.0	25.5	54.0	-28.5	EUT on Side, Mid 915.25 MHz, Pwr 3204
2784.050	29.3	-3.8	1.1	308.0	3.0	0.0	Horz	AV	0.0	25.5	54.0	-28.5	EUT on Side, High 927.25 MHz, Pwr 3226
2706.158	29.0	-3.6	1.3	10.0	3.0	0.0	Horz	AV	0.0	25.4	54.0	-28.6	EUT on Side, Low 902.75 MHz, Pwr 3293
2708.233	29.0	-3.6	1.3	205.0	3.0	0.0	Vert	AV	0.0	25.4	54.0	-28.6	EUT on Side, Low 902.75 MHz, Pwr 3293
3660.738	45.6	-0.9	1.2	5.0	3.0	0.0	Vert	PK	0.0	44.7	74.0	-29.3	EUT on Side, Mid 915.25 MHz, Pwr 3204
3610.833	45.9	-1.3	1.3	29.0	3.0	0.0	Vert	PK	0.0	44.6	74.0	-29.4	EUT on Side, Low 902.75 MHz, Pwr 3293
3660.896	45.5	-0.9	1.0	22.0	3.0	0.0	Vert	PK	0.0	44.6	74.0	-29.4	EUT Vertical, Mid 915.25 MHz, Pwr 3204
3708.658	44.7	-0.6	1.3	347.0	3.0	0.0	Horz	PK	0.0	44.1	74.0	-29.9	EUT on Side, High 927.25 MHz, Pwr 3226
3661.096	44.9	-0.9	1.0	315.0	3.0	0.0	Horz	PK	0.0	44.0	74.0	-30.0	EUT Vertical, Mid 915.25 MHz, Pwr 3204
4574.933	41.3	2.6	1.3	292.0	3.0	0.0	Vert	PK	0.0	43.9	74.0	-30.1	EUT on Side, Mid 915.25 MHz, Pwr 3204
1854.442	49.2	-5.8	1.3	238.0	3.0	0.0	Horz	PK	0.0	43.4	74.0	-30.6	EUT on Side, High 927.25 MHz, Pwr 3226
3661.071	44.3	-0.9	1.3	5.0	3.0	0.0	Horz	PK	0.0	43.4	74.0	-30.6	EUT on Side, Mid 915.25 MHz, Pwr 3204
3660.771	44.0	-0.9	1.2	161.0	3.0	0.0	Vert	PK	0.0	43.1	74.0	-30.9	EUT Horizontal, Mid 915.25 MHz, Pwr 3204
4633.758	40.1	2.9	1.3	177.0	3.0	0.0	Vert	PK	0.0	43.0	74.0	-31.0	EUT on Side, High 927.25 MHz, Pwr 3226
3708.725	43.5	-0.6	1.4	332.0	3.0	0.0	Vert	PK	0.0	42.9	74.0	-31.1	EUT on Side, High 927.25 MHz, Pwr 3226
1854.642	47.8	-5.8	1.3	331.0	3.0	0.0	Vert	PK	0.0	42.0	74.0	-32.0	EUT on Side, High 927.25 MHz, Pwr 3226
4512.183	39.7	2.2	1.3	323.0	3.0	0.0	Vert	PK	0.0	41.9	74.0	-32.1	EUT on Side, Low 902.75 MHz, Pwr 3293
4637.167	38.9	2.9	2.9	113.0	3.0	0.0	Horz	PK	0.0	41.8	74.0	-32.2	EUT on Side, High 927.25 MHz, Pwr 3226
4512.742	39.5	2.2	1.3	29.0	3.0	0.0	Horz	PK	0.0	41.7	74.0	-32.3	EUT on Side, Low 902.75 MHz, Pwr 3293
4576.025	38.9	2.6	3.0	181.0	3.0	0.0	Horz	PK	0.0	41.5	74.0	-32.5	EUT on Side, Mid 915.25 MHz, Pwr 3204
3661.330	42.1	-0.9	1.0	301.0	3.0	0.0	Horz	PK	0.0	41.2	74.0	-32.8	EUT Horizontal, Mid 915.25 MHz, Pwr 3204
2780.458	42.6	-3.8	1.3	235.0	3.0	0.0	Vert	PK	0.0	38.8	74.0	-35.2	EUT on Side, High 927.25 MHz, Pwr 3226
2744.592	42.4	-3.7	2.5	196.0	3.0	0.0	Vert	PK	0.0	38.7	74.0	-35.3	EUT on Side, Mid 915.25 MHz, Pwr 3204
2746.517	42.2	-3.7	1.3	12.0	3.0	0.0	Horz	PK	0.0	38.5	74.0	-35.5	EUT on Side, Mid 915.25 MHz, Pwr 3204
1805.142	44.6	-6.2	1.3	197.0	3.0	0.0	Vert	PK	0.0	38.4	74.0	-35.6	EUT on Side, Low 902.75 MHz, Pwr 3293
2782.683	42.2	-3.8	1.1	308.0	3.0	0.0	Horz	PK	0.0	38.4	74.0	-35.6	EUT on Side, High 927.25 MHz, Pwr 3226
2708.092	41.9	-3.6	1.3	205.0	3.0	0.0	Vert	PK	0.0	38.3	74.0	-35.7	EUT on Side, Low 902.75 MHz, Pwr 3293
2708.825	41.9	-3.6	1.3	10.0	3.0	0.0	Horz	PK	0.0	38.3	74.0	-35.7	EUT on Side, Low 902.75 MHz, Pwr 3293
1830.975	44.2	-6.0	1.0	205.0	3.0	0.0	Horz	PK	0.0	38.2	74.0	-35.8	EUT on Side, Mid 915.25 MHz, Pwr 3204
1831.175	43.0	-6.0	1.3	156.0	3.0	0.0	Vert	PK	0.0	37.0	74.0	-37.0	EUT on Side, Mid 915.25 MHz, Pwr 3204
1805.592	43.1	-6.2	1.3	149.0	3.0	0.0	Horz	PK	0.0	36.9	74.0	-37.1	EUT on Side, Low 902.75 MHz, Pwr 3293

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data. The test data represents the configuration / operating mode/ model that produced the highest emission levels as compared to the specification limit.

**MODES OF OPERATION**

Transmitting PRASK modulation, EPC Tags.

**POWER SETTINGS INVESTIGATED**

120VAC/60Hz

**CONFIGURATIONS INVESTIGATED**

INMC0602 - 3

**FREQUENCY RANGE INVESTIGATED**

Start Frequency	30 MHz	Stop Frequency	10 GHz
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**SAMPLE CALCULATIONS**

Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation

**TEST EQUIPMENT**

Description	Manufacturer	Model	ID	Last Cal.	Interval
Attenuator, 6 dB, 'SMA'	SM Electronics	SA18H-06	REM	7/9/2010	13 mo
Attenuator, 20 dB, 'SMA'	SM Electronics	SA6-20	REO	7/9/2010	13 mo
Attenuator, 10db, 'SMA'	S.M. Electronics	SA18H-10	REN	7/9/2010	13 mo
.5-1 GHz Notch Filter	K&L Microwave	3TNF-500/1000-N/N	HFT	1/8/2010	13 mo
High Pass Filter 0-425 MHz	Micro-Tronics	LPM50003	HGO	7/9/2010	13 mo
High Pass Filter	Micro-Tronics	HPM50108	HGP	7/9/2010	13 mo
Antenna, Horn	ETS	3160-07	AXP	NCR	0 mo
Pre-Amplifier	Miteq	AMF-6F-08001200-30-10P	AVV	7/19/2010	13 mo
MN05 Cables	ESM Cable Corp.	Standard Gain Horn Cables	MNJ	7/19/2010	13 mo
MN05 Cables	ESM Cable Corp.	Double Ridge Guide Horn Cables	MNI	7/19/2010	13 mo
Antenna, Horn (DRG)	ETS Lindgren	3115	AIP	12/22/2009	24 mo
Pre-Amplifier	Miteq	AMF-3D-00100800-32-13P	AVX	7/19/2010	13 mo
Pre-Amplifier	Miteq	AM-1616-1000	AVY	7/19/2010	13 mo
MN05 Cables	ESM Cable Corp.	Bilog Cables	MNH	1/15/2010	13 mo
Antenna, Biconilog	ETS Lindgren	3142D	AXO	12/30/2009	13 mo
Spectrum Analyzer	Agilent	E4446A	AAT	2/24/2010	12 mo

**MEASUREMENT BANDWIDTHS**

	Frequency Range (MHz)	Peak Data (kHz)	Quasi-Peak Data (kHz)	Average Data (kHz)
	0.01 - 0.15	1.0	0.2	0.2
	0.15 - 30.0	10.0	9.0	9.0
	30.0 - 1000	100.0	120.0	120.0
	Above 1000	1000.0	N/A	1000.0

Measurements were made using the IF bandwidths and detectors specified. No video filter was used, except in the case of the FCC Average Measurements above 1GHz. In that case, a peak detector with a 10Hz video bandwidth was used.

**MEASUREMENT UNCERTAINTY**

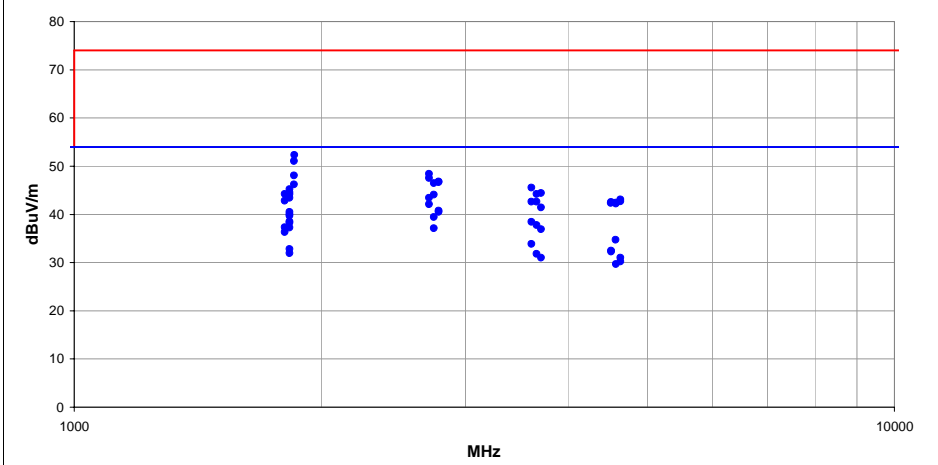
A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty for radiated emissions measurements is less than +/- 4 dB, and for conducted emissions measurements is less than +/- 2.7 dB. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for measurement uncertainty are available upon request.

**TEST DESCRIPTION**

The highest gain of each type of antenna to be used with the EUT was tested. The EUT was configured for low, mid, and high band transmit frequencies. For each configuration, the spectrum was scanned throughout the specified range. In addition, measurements were made in the restricted bands to verify compliance. While scanning, emissions from the EUT were maximized by rotating the EUT on a turntable, adjusting the position of the EUT and the EUT antenna in three orthogonal axes, and adjusting measurement antenna height and polarization, and manipulating the EUT antenna in 3 orthogonal planes (per ANSI C63.10:2009). A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

<b>Work Order:</b>	INMC0602	<b>Date:</b>	10/04/10	<i>Trevor Buls</i>
<b>Project:</b>	P-INMC015	<b>Temperature:</b>	22.59°C	
<b>Job Site:</b>	MN05	<b>Humidity:</b>	41.49	
<b>Serial Number:</b>	21711052511	<b>Barometric Pres.:</b>	1029.9	
<b>EUT:</b>	IM5r3 <b>Tested by:</b> Trevor Buls			
<b>Configuration:</b>	3 - INMC0602			
<b>Customer:</b>	Intermec Technologies Corporation			
<b>Attendees:</b>	None			
<b>EUT Power:</b>	120VAC/60Hz			
<b>Operating Mode:</b>	Transmitting PRASK modulation, EPC Tags.			
<b>Deviations:</b>	None			
<b>Comments:</b>	Antenna Port 4 is worst case. Using NeWave Multi-Axis antenna.			

<b>Test Specifications</b>	<b>Test Method</b>						
FCC 15.247:2010	ANSI C63.10:2009						
<b>Run #</b>	31	<b>Test Distance (m)</b>	3	<b>Antenna Height(s)</b>	1-4m	<b>Results</b>	Pass



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
1854.550	53.8	-5.8	1.1	29.0	3.0	0.0	Horz	AV	0.0	48.0	54.0	-6.0	EUT on Side, High 927.25 MHz, Pwr 3226
1854.508	52.0	-5.8	1.1	336.0	3.0	0.0	Vert	AV	0.0	46.2	54.0	-7.8	EUT on Side, High 927.25 MHz, Pwr 3226
2708.317	47.0	-3.6	1.2	156.0	3.0	0.0	Horz	AV	0.0	43.4	54.0	-10.6	EUT on Side, Low 902.75 MHz, Pwr 3293
2708.258	45.7	-3.6	1.2	229.0	3.0	0.0	Vert	AV	0.0	42.1	54.0	-11.9	EUT on Side, Low 902.75 MHz, Pwr 3293
2781.758	44.6	-3.8	1.3	276.0	3.0	0.0	Vert	AV	0.0	40.8	54.0	-13.2	EUT on Side, High 927.25 MHz, Pwr 3226
2781.758	44.3	-3.8	1.4	161.0	3.0	0.0	Horz	AV	0.0	40.5	54.0	-13.5	EUT on Side, High 927.25 MHz, Pwr 3226
1830.550	45.7	-6.0	1.0	345.0	3.0	0.0	Horz	AV	0.0	39.7	54.0	-14.3	EUT on Side, Mid 915.25 MHz, Pwr 3204
2745.775	43.1	-3.7	1.3	321.0	3.0	0.0	Vert	AV	0.0	39.4	54.0	-14.6	EUT on Side, Mid 915.25 MHz, Pwr 3204
1830.525	44.5	-6.0	1.0	185.0	3.0	0.0	Vert	AV	0.0	38.5	54.0	-15.5	EUT Vertical, Mid 915.25 MHz, Pwr 3204
3611.042	39.7	-1.3	1.3	33.0	3.0	0.0	Horz	AV	0.0	38.4	54.0	-15.6	EUT on Side, Low 902.75 MHz, Pwr 3293
1830.550	44.2	-6.0	1.3	191.0	3.0	0.0	Vert	AV	0.0	38.2	54.0	-15.8	EUT on Side, Mid 915.25 MHz, Pwr 3204
3661.050	38.7	-0.9	1.2	346.0	3.0	0.0	Vert	AV	0.0	37.8	54.0	-16.2	EUT on Side, Mid 915.25 MHz, Pwr 3204
1805.492	43.5	-6.2	1.3	0.0	3.0	0.0	Vert	AV	0.0	37.3	54.0	-16.7	EUT on Side, Low 902.75 MHz, Pwr 3293
1830.533	43.2	-6.0	1.3	17.0	3.0	0.0	Horz	AV	0.0	37.2	54.0	-16.8	EUT Horizontal, Mid 915.25 MHz, Pwr 3204
2745.750	40.8	-3.7	1.3	184.0	3.0	0.0	Horz	AV	0.0	37.1	54.0	-16.9	EUT on Side, Mid 915.25 MHz, Pwr 3204
3709.033	37.5	-0.6	1.3	24.0	3.0	0.0	Vert	AV	0.0	36.9	54.0	-17.1	EUT on Side, High 927.25 MHz, Pwr 3226
1805.558	42.5	-6.2	1.3	219.0	3.0	0.0	Horz	AV	0.0	36.3	54.0	-17.7	EUT on Side, Low 902.75 MHz, Pwr 3293
4573.500	32.1	2.6	1.3	318.0	3.0	0.0	Vert	AV	0.0	34.7	54.0	-19.3	EUT on Side, Mid 915.25 MHz, Pwr 3204
3611.050	35.1	-1.3	1.2	62.0	3.0	0.0	Vert	AV	0.0	33.8	54.0	-20.2	EUT on Side, Low 902.75 MHz, Pwr 3293
1830.542	38.8	-6.0	1.3	228.0	3.0	0.0	Horz	AV	0.0	32.8	54.0	-21.2	EUT Vertical, Mid 915.25 MHz, Pwr 3204
4513.783	30.2	2.2	1.3	168.0	3.0	0.0	Horz	AV	0.0	32.4	54.0	-21.6	EUT on Side, Low 902.75 MHz, Pwr 3293
1854.558	58.1	-5.8	1.1	29.0	3.0	0.0	Horz	PK	0.0	52.3	74.0	-21.7	EUT on Side, High 927.25 MHz, Pwr 3226
4513.742	30.0	2.2	1.3	166.0	3.0	0.0	Vert	AV	0.0	32.2	54.0	-21.8	EUT on Side, Low 902.75 MHz, Pwr 3293
1830.533	37.9	-6.0	1.2	263.0	3.0	0.0	Vert	AV	0.0	31.9	54.0	-22.1	EUT Horizontal, Mid 915.25 MHz, Pwr 3204
3661.058	32.7	-0.9	1.3	75.0	3.0	0.0	Horz	AV	0.0	31.8	54.0	-22.2	EUT on Side, Mid 915.25 MHz, Pwr 3204
1854.425	56.8	-5.8	1.1	336.0	3.0	0.0	Vert	PK	0.0	51.0	74.0	-23.0	EUT on Side, High 927.25 MHz, Pwr 3226
3709.033	31.6	-0.6	1.3	18.0	3.0	0.0	Horz	AV	0.0	31.0	54.0	-23.0	EUT on Side, High 927.25 MHz, Pwr 3226
4636.308	28.1	2.9	1.3	253.0	3.0	0.0	Vert	AV	0.0	31.0	54.0	-23.0	EUT on Side, High 927.25 MHz, Pwr 3226
4636.075	27.3	2.9	1.8	163.0	3.0	0.0	Horz	AV	0.0	30.2	54.0	-23.8	EUT on Side, High 927.25 MHz, Pwr 3226
4577.892	27.0	2.7	2.9	263.0	3.0	0.0	Horz	AV	0.0	29.7	54.0	-24.3	EUT on Side, Mid 915.25 MHz, Pwr 3204
2708.083	52.0	-3.6	1.2	156.0	3.0	0.0	Horz	PK	0.0	48.4	74.0	-25.6	EUT on Side, Low 902.75 MHz, Pwr 3293
2708.342	51.1	-3.6	1.2	229.0	3.0	0.0	Vert	PK	0.0	47.5	74.0	-26.5	EUT on Side, Low 902.75 MHz, Pwr 3293
2781.742	50.6	-3.8	1.3	276.0	3.0	0.0	Vert	PK	0.0	46.8	74.0	-27.2	EUT on Side, High 927.25 MHz, Pwr 3226
2781.683	50.5	-3.8	1.4	161.0	3.0	0.0	Horz	PK	0.0	46.7	74.0	-27.3	EUT on Side, High 927.25 MHz, Pwr 3226
2745.875	50.2	-3.7	1.3	321.0	3.0	0.0	Vert	PK	0.0	46.5	74.0	-27.5	EUT on Side, Mid 915.25 MHz, Pwr 3204
3611.058	46.8	-1.3	1.3	33.0	3.0	0.0	Horz	PK	0.0	45.5	74.0	-28.5	EUT on Side, Low 902.75 MHz, Pwr 3293
1830.592	51.2	-6.0	1.0	345.0	3.0	0.0	Horz	PK	0.0	45.2	74.0	-28.8	EUT on Side, Mid 915.25 MHz, Pwr 3204
1830.458	50.5	-6.0	1.0	185.0	3.0	0.0	Vert	PK	0.0	44.5	74.0	-29.5	EUT Vertical, Mid 915.25 MHz, Pwr 3204
3709.100	45.0	-0.6	1.3	24.0	3.0	0.0	Vert	PK	0.0	44.4	74.0	-29.6	EUT on Side, High 927.25 MHz, Pwr 3226
3661.075	45.1	-0.9	1.2	346.0	3.0	0.0	Vert	PK	0.0	44.2	74.0	-29.8	EUT on Side, Mid 915.25 MHz, Pwr 3204
1805.483	50.4	-6.2	1.3	0.0	3.0	0.0	Vert	PK	0.0	44.2	74.0	-29.8	EUT on Side, Low 902.75 MHz, Pwr 3293
1830.233	50.1	-6.0	1.3	191.0	3.0	0.0	Vert	PK	0.0	44.1	74.0	-29.9	EUT on Side, Mid 915.25 MHz, Pwr 3204
2745.525	47.8	-3.7	1.3	184.0	3.0	0.0	Horz	PK	0.0	44.1	74.0	-29.9	EUT on Side, Mid 915.25 MHz, Pwr 3204
1830.558	49.4	-6.0	1.3	17.0	3.0	0.0	Horz	PK	0.0	43.4	74.0	-30.6	EUT Horizontal, Mid 915.25 MHz, Pwr 3204
4636.150	40.2	2.9	1.3	253.0	3.0	0.0	Vert	PK	0.0	43.1	74.0	-30.9	EUT on Side, High 927.25 MHz, Pwr 3226
1805.425	49.0	-6.2	1.3	219.0	3.0	0.0	Horz	PK	0.0	42.8	74.0	-31.2	EUT on Side, Low 902.75 MHz, Pwr 3293
4636.417	39.8	2.9	1.8	163.0	3.0	0.0	Horz	PK	0.0	42.7	74.0	-31.3	EUT on Side, High 927.25 MHz, Pwr 3226
3611.183	43.9	-1.3	1.2	62.0	3.0	0.0	Vert	PK	0.0	42.6	74.0	-31.4	EUT on Side, Low 902.75 MHz, Pwr 3293
3661.233	43.5	-0.9	1.3	75.0	3.0	0.0	Horz	PK	0.0	42.6	74.0	-31.4	EUT on Side, Mid 915.25 MHz, Pwr 3204
4513.583	40.3	2.2	1.3	168.0	3.0	0.0	Horz	PK	0.0	42.5	74.0	-31.5	EUT on Side, Low 902.75 MHz, Pwr 3293
4575.808	39.8	2.6	1.3	318.0	3.0	0.0	Vert	PK	0.0	42.4	74.0	-31.6	EUT on Side, Mid 915.25 MHz, Pwr 3204
4513.333	40.1	2.2	1.3	166.0	3.0	0.0	Vert	PK	0.0	42.3	74.0	-31.7	EUT on Side, Low 902.75 MHz, Pwr 3293
4577.667	39.6	2.7	2.9	263.0	3.0	0.0	Horz	PK	0.0	42.3	74.0	-31.7	EUT on Side, Mid 915.25 MHz, Pwr 3204
3708.917	42.0	-0.6	1.3	18.0	3.0	0.0	Horz	PK	0.0	41.4	74.0	-32.6	EUT on Side, High 927.25 MHz, Pwr 3226
1830.575	46.5	-6.0	1.2	263.0	3.0	0.0	Vert	PK	0.0	40.5	74.0	-33.5	EUT Horizontal, Mid 915.25 MHz, Pwr 3204
1830.600	46.0	-6.0	1.3	228.0	3.0	0.0	Horz	PK	0.0	40.0	74.0	-34.0	EUT Vertical, Mid 915.25 MHz, Pwr 3204

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data. The test data represents the configuration / operating mode/ model that produced the highest emission levels as compared to the specification limit.

**MODES OF OPERATION**

Transmitting ASK modulation ISO Tags.  
Transmitting PRASK modulation, EPC Tags.

**POWER SETTINGS INVESTIGATED**

120VAC/60Hz

**CONFIGURATIONS INVESTIGATED**

INMC0602 - 2

**FREQUENCY RANGE INVESTIGATED**

Start Frequency	30 MHz	Stop Frequency	10 GHz
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**SAMPLE CALCULATIONS**

Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation

**TEST EQUIPMENT**

Description	Manufacturer	Model	ID	Last Cal.	Interval
.5-1 GHz Notch Filter	K&L Microwave	3TNF-500/1000-N/N	HFT	1/8/2010	13 mo
High Pass Filter 0-425 MHz	Micro-Tronics	LPM50003	HGO	7/9/2010	13 mo
High Pass Filter	Micro-Tronics	HPM50108	HGP	7/9/2010	13 mo
Attenuator, 10db, 'SMA'	S.M. Electronics	SA18H-10	REN	7/9/2010	13 mo
Attenuator, 6 dB, 'SMA'	SM Electronics	SA18H-06	REM	7/9/2010	13 mo
Attenuator, 20 dB, 'SMA'	SM Electronics	SA6-20	REO	7/9/2010	13 mo
MN05 Cables	ESM Cable Corp.	Standard Gain Horn Cables	MNJ	7/19/2010	13 mo
Pre-Amplifier	Miteq	AMF-6F-08001200-30-10P	AVV	7/19/2010	13 mo
Antenna, Horn	ETS	3160-07	AXP	NCR	0 mo
Antenna, Horn (DRG)	ETS Lindgren	3115	AIP	12/22/2009	24 mo
MN05 Cables	ESM Cable Corp.	Double Ridge Guide Horn Cables	MNI	7/19/2010	13 mo
Pre-Amplifier	Miteq	AMF-3D-00100800-32-13P	AVX	7/19/2010	13 mo
Pre-Amplifier	Miteq	AM-1616-1000	AVY	7/19/2010	13 mo
MN05 Cables	ESM Cable Corp.	Bilog Cables	MNH	1/15/2010	13 mo
Antenna, Biconilog	ETS Lindgren	3142D	AXO	12/30/2009	13 mo
Spectrum Analyzer	Agilent	E4446A	AAT	2/24/2010	12 mo

**MEASUREMENT BANDWIDTHS**

Frequency Range	Peak Data		Quasi-Peak Data		Average Data	
	(MHz)	(kHz)	(kHz)	(kHz)	(kHz)	(kHz)
0.01 - 0.15		1.0		0.2		0.2
0.15 - 30.0		10.0		9.0		9.0
30.0 - 1000		100.0		120.0		120.0
Above 1000		1000.0		N/A		1000.0

Measurements were made using the IF bandwidths and detectors specified. No video filter was used, except in the case of the FCC Average Measurements above 1GHz. In that case, a peak detector with a 10Hz video bandwidth was used.

**MEASUREMENT UNCERTAINTY**

A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty for radiated emissions measurements is less than +/- 4 dB, and for conducted emissions measurements is less than +/- 2.7 dB. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for measurement uncertainty are available upon request.

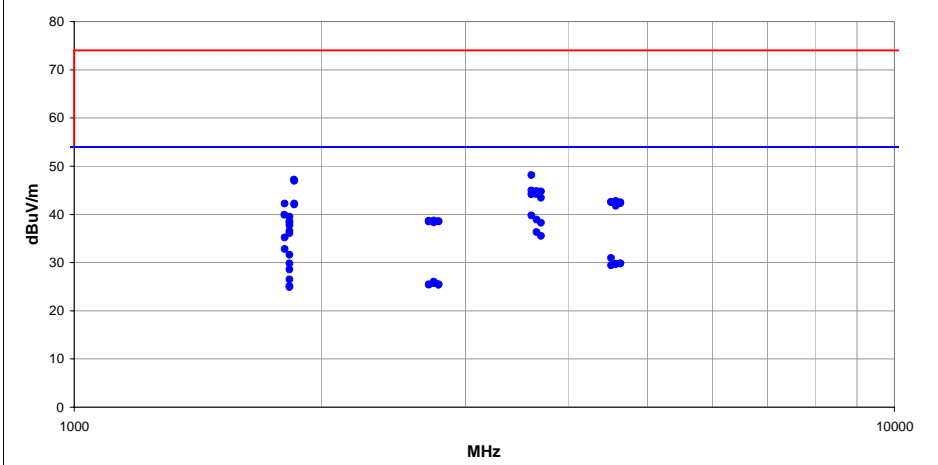
**TEST DESCRIPTION**

The highest gain of each type of antenna to be used with the EUT was tested. The EUT was configured for low, mid, and high band transmit frequencies. For each configuration, the spectrum was scanned throughout the specified range. In addition, measurements were made in the restricted bands to verify compliance. While scanning, emissions from the EUT were maximized by rotating the EUT on a turntable, adjusting the position of the EUT and the EUT antenna in three orthogonal axis, and adjusting measurement antenna height and polarization, and manipulating the EUT antenna in 3 orthogonal planes (per ANSI C63.10:2009). A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.



<b>Work Order:</b>	INMC0602	<b>Date:</b>	10/02/10	<i>Trevor Buls</i>
<b>Project:</b>	P-INMC015	<b>Temperature:</b>	22.59°C	
<b>Job Site:</b>	MN05	<b>Humidity:</b>	41.49	
<b>Serial Number:</b>	21711052511	<b>Barometric Pres.:</b>	1029.9	
<b>EUT:</b>	IM5r3			
<b>Configuration:</b>	2 - INMC0602			
<b>Customer:</b>	Intermec Technologies Corporation			
<b>Attendees:</b>	None			
<b>EUT Power:</b>	120VAC/60Hz			
<b>Operating Mode:</b>	Transmitting PRASK modulation, EPC Tags.			
<b>Deviations:</b>	None			
<b>Comments:</b>	Antenna Port 4 is worst case. Using Huber Suhner antenna.			

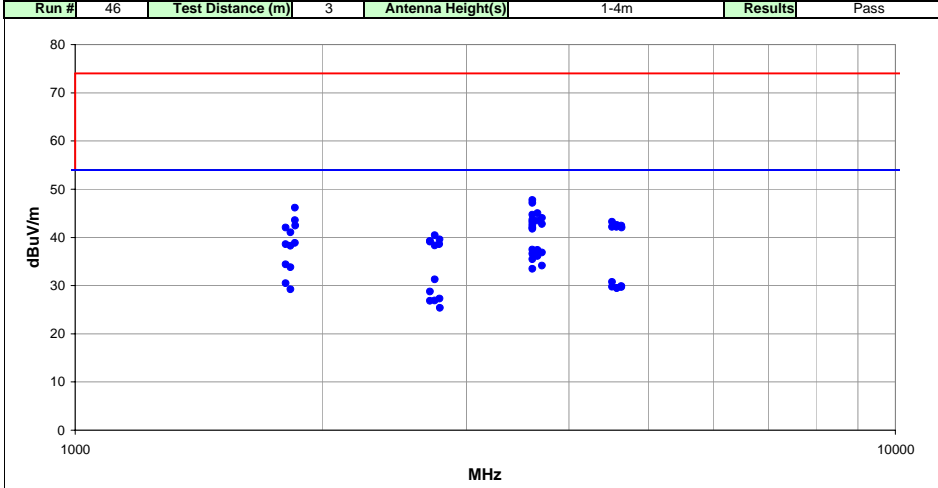
<b>Test Specifications</b> FCC 15.247:2010	<b>Test Method</b> ANSI C63.10:2009						
<b>Run #</b>	1	<b>Test Distance (m)</b>	3	<b>Antenna Height(s)</b>	1-4m	<b>Results</b>	Pass



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
3611.050	45.4	-1.3	1.1	18.0	3.0	0.0	Vert	AV	0.0	44.1	54.0	-9.9	EUT Vertical, Low 902.75 MHz, Pwr 3293
1854.558	48.0	-5.8	1.2	21.0	3.0	0.0	Vert	AV	0.0	42.2	54.0	-11.8	EUT Vertical, High 927.25 MHz, Pwr 3226
1854.567	47.8	-5.8	1.8	46.0	3.0	0.0	Horz	AV	0.0	42.0	54.0	-12.0	EUT Vertical, High 927.25 MHz, Pwr 3226
3611.042	41.0	-1.3	1.1	321.0	3.0	0.0	Horz	AV	0.0	39.7	54.0	-14.3	EUT Vertical, Low 902.75 MHz, Pwr 3293
3661.008	39.8	-0.9	1.3	342.0	3.0	0.0	Horz	AV	0.0	38.9	54.0	-15.1	EUT Vertical, Mid 915.25 MHz, Pwr 3204
3709.058	38.8	-0.6	1.4	331.0	3.0	0.0	Horz	AV	0.0	38.2	54.0	-15.8	EUT Vertical, High 927.25 MHz, Pwr 3226
3661.033	37.2	-0.9	1.3	26.0	3.0	0.0	Vert	AV	0.0	36.3	54.0	-17.7	EUT Vertical, Mid 915.25 MHz, Pwr 3204
3709.025	36.1	-0.6	1.3	335.0	3.0	0.0	Vert	AV	0.0	35.5	54.0	-18.5	EUT Vertical, High 927.25 MHz, Pwr 3226
1805.558	41.4	-6.2	1.0	46.0	3.0	0.0	Horz	AV	0.0	35.2	54.0	-18.8	EUT Vertical, Low 902.75 MHz, Pwr 3293
1805.542	39.0	-6.2	1.8	8.0	3.0	0.0	Vert	AV	0.0	32.8	54.0	-21.2	EUT Vertical, Low 902.75 MHz, Pwr 3293
1830.558	37.6	-6.0	1.3	9.0	3.0	0.0	Vert	AV	0.0	31.6	54.0	-22.4	EUT Vertical, Mid 915.25 MHz, Pwr 3204
4513.758	28.7	2.2	1.1	14.0	3.0	0.0	Horz	AV	0.0	30.9	54.0	-23.1	EUT Vertical, Low 902.75 MHz, Pwr 3293
1830.508	35.8	-6.0	1.2	60.0	3.0	0.0	Horz	AV	0.0	29.8	54.0	-24.2	EUT on Side, Mid 915.25 MHz, Pwr 3204
4636.508	26.9	2.9	1.3	69.0	3.0	0.0	Vert	AV	0.0	29.8	54.0	-24.2	EUT Vertical, High 927.25 MHz, Pwr 3226
4633.542	26.9	2.9	1.3	132.0	3.0	0.0	Horz	AV	0.0	29.8	54.0	-24.2	EUT Vertical, High 927.25 MHz, Pwr 3226
4576.225	27.1	2.6	1.3	247.0	3.0	0.0	Horz	AV	0.0	29.7	54.0	-24.3	EUT Vertical, Mid 915.25 MHz, Pwr 3204
4578.592	27.0	2.7	1.3	317.0	3.0	0.0	Vert	AV	0.0	29.7	54.0	-24.3	EUT Vertical, Mid 915.25 MHz, Pwr 3204
4513.675	27.2	2.2	2.0	319.0	3.0	0.0	Vert	AV	0.0	29.4	54.0	-24.6	EUT Vertical, Low 902.75 MHz, Pwr 3293
1830.542	34.5	-6.0	2.3	268.0	3.0	0.0	Vert	AV	0.0	28.5	54.0	-25.5	EUT Horizontal, Mid 915.25 MHz, Pwr 3204
3610.917	49.4	-1.3	1.1	18.0	3.0	0.0	Vert	PK	0.0	48.1	74.0	-25.9	EUT Vertical, Low 902.75 MHz, Pwr 3293
1854.417	53.0	-5.8	1.2	21.0	3.0	0.0	Vert	PK	0.0	47.2	74.0	-26.8	EUT Vertical, High 927.25 MHz, Pwr 3226
1854.567	52.7	-5.8	1.8	46.0	3.0	0.0	Horz	PK	0.0	46.9	74.0	-27.1	EUT Vertical, High 927.25 MHz, Pwr 3226
1830.492	32.5	-6.0	1.9	79.0	3.0	0.0	Horz	AV	0.0	26.5	54.0	-27.5	EUT Horizontal, Mid 915.25 MHz, Pwr 3204
2745.808	29.7	-3.7	1.3	225.0	3.0	0.0	Horz	AV	0.0	26.0	54.0	-28.0	EUT Vertical, Mid 915.25 MHz, Pwr 3204
2745.850	29.4	-3.7	1.3	67.0	3.0	0.0	Vert	AV	0.0	25.7	54.0	-28.3	EUT Vertical, Mid 915.25 MHz, Pwr 3204
2783.483	29.3	-3.8	1.3	174.0	3.0	0.0	Vert	AV	0.0	25.5	54.0	-28.5	EUT Vertical, High 927.25 MHz, Pwr 3226
2705.867	29.0	-3.6	1.3	350.0	3.0	0.0	Vert	AV	0.0	25.4	54.0	-28.6	EUT Vertical, Low 902.75 MHz, Pwr 3293
2708.017	29.0	-3.6	1.3	292.0	3.0	0.0	Horz	AV	0.0	25.4	54.0	-28.6	EUT Vertical, Low 902.75 MHz, Pwr 3293
2783.442	29.2	-3.8	1.3	320.0	3.0	0.0	Horz	AV	0.0	25.4	54.0	-28.6	EUT Vertical, High 927.25 MHz, Pwr 3226
1830.550	31.1	-6.0	1.6	254.0	3.0	0.0	Vert	AV	0.0	25.1	54.0	-28.9	EUT on Side, Mid 915.25 MHz, Pwr 3204
3611.200	46.2	-1.3	1.1	321.0	3.0	0.0	Horz	PK	0.0	44.9	74.0	-29.1	EUT Vertical, Low 902.75 MHz, Pwr 3293
1830.500	30.9	-6.0	1.3	238.0	3.0	0.0	Horz	AV	0.0	24.9	54.0	-29.1	EUT Vertical, Mid 915.25 MHz, Pwr 3204
3661.017	45.7	-0.9	1.3	342.0	3.0	0.0	Horz	PK	0.0	44.8	74.0	-29.2	EUT Vertical, Mid 915.25 MHz, Pwr 3204
3709.325	45.3	-0.6	1.4	331.0	3.0	0.0	Horz	PK	0.0	44.7	74.0	-29.3	EUT Vertical, High 927.25 MHz, Pwr 3226
3660.783	45.1	-0.9	1.3	26.0	3.0	0.0	Vert	PK	0.0	44.2	74.0	-29.8	EUT Vertical, Mid 915.25 MHz, Pwr 3204
3709.042	44.0	-0.6	1.3	335.0	3.0	0.0	Vert	PK	0.0	43.4	74.0	-30.6	EUT Vertical, High 927.25 MHz, Pwr 3226
4576.133	40.1	2.6	1.3	247.0	3.0	0.0	Horz	PK	0.0	42.7	74.0	-31.3	EUT Vertical, Mid 915.25 MHz, Pwr 3204
4515.950	40.3	2.3	2.0	319.0	3.0	0.0	Vert	PK	0.0	42.6	74.0	-31.4	EUT Vertical, Low 902.75 MHz, Pwr 3293
4513.783	40.3	2.2	1.1	14.0	3.0	0.0	Horz	PK	0.0	42.5	74.0	-31.5	EUT Vertical, Low 902.75 MHz, Pwr 3293
4633.750	39.6	2.9	1.3	132.0	3.0	0.0	Horz	PK	0.0	42.5	74.0	-31.5	EUT Vertical, High 927.25 MHz, Pwr 3226
4634.017	39.4	2.9	1.3	69.0	3.0	0.0	Vert	PK	0.0	42.3	74.0	-31.7	EUT Vertical, High 927.25 MHz, Pwr 3226
1805.492	48.4	-6.2	1.0	46.0	3.0	0.0	Horz	PK	0.0	42.2	74.0	-31.8	EUT Vertical, Low 902.75 MHz, Pwr 3293
4576.208	39.1	2.6	1.3	317.0	3.0	0.0	Vert	PK	0.0	41.7	74.0	-32.3	EUT Vertical, Mid 915.25 MHz, Pwr 3204
1805.175	46.1	-6.2	1.8	8.0	3.0	0.0	Vert	PK	0.0	39.9	74.0	-34.1	EUT Vertical, Low 902.75 MHz, Pwr 3293
1830.517	45.5	-6.0	1.3	9.0	3.0	0.0	Vert	PK	0.0	39.5	74.0	-34.5	EUT Vertical, Mid 915.25 MHz, Pwr 3204
2745.458	42.4	-3.7	1.3	67.0	3.0	0.0	Vert	PK	0.0	38.7	74.0	-35.3	EUT Vertical, Mid 915.25 MHz, Pwr 3204
2706.825	42.2	-3.6	1.3	292.0	3.0	0.0	Horz	PK	0.0	38.6	74.0	-35.4	EUT Vertical, Low 902.75 MHz, Pwr 3293
2781.942	42.4	-3.8	1.3	174.0	3.0	0.0	Vert	PK	0.0	38.6	74.0	-35.4	EUT Vertical, High 927.25 MHz, Pwr 3226
2705.983	42.1	-3.6	1.3	350.0	3.0	0.0	Vert	PK	0.0	38.5	74.0	-35.5	EUT Vertical, Low 902.75 MHz, Pwr 3293
1830.325	44.5	-6.0	1.2	60.0	3.0	0.0	Horz	PK	0.0	38.5	74.0	-35.5	EUT on Side, Mid 915.25 MHz, Pwr 3204
2782.375	42.3	-3.7	1.3	320.0	3.0	0.0	Horz	PK	0.0	38.5	74.0	-35.5	EUT Vertical, High 927.25 MHz, Pwr 3226
2745.900	42.0	-3.7	1.3	225.0	3.0	0.0	Horz	PK	0.0	38.3	74.0	-35.7	EUT Vertical, Mid 915.25 MHz, Pwr 3204
1830.425	44.2	-6.0	2.3	268.0	3.0	0.0	Vert	PK	0.0	38.2	74.0	-35.8	EUT Horizontal, Mid 915.25 MHz, Pwr 3204
1830.533	43.7	-6.0	1.9	79.0	3.0	0.0	Horz	PK	0.0	37.7	74.0	-36.3	EUT Horizontal, Mid 915.25 MHz, Pwr 3204
1830.675	42.5	-6.0	1.6	254.0	3.0	0.0	Vert	PK	0.0	36.5	74.0	-37.5	EUT on Side, Mid 915.25 MHz, Pwr 3204
1830.117	42.0	-6.0	1.3	238.0	3.0	0.0	Horz	PK	0.0	36.0	74.0	-38.0	EUT Vertical, Mid 915.25 MHz, Pwr 3204

<b>Work Order:</b>	INMC0602	<b>Date:</b>	10/05/10	<i>Trevor Bults</i>
<b>Project:</b>	P-INMC015	<b>Temperature:</b>	22.59°C	
<b>Job Site:</b>	MN05	<b>Humidity:</b>	41.49	
<b>Serial Number:</b>	21711052511	<b>Barometric Pres.:</b>	1029.9	
<b>EUT:</b>	IM5r3			
<b>Configuration:</b>	2 - INMC0602			
<b>Customer:</b>	Intermec Technologies Corporation			
<b>Attendees:</b>	None			
<b>EUT Power:</b>	120VAC/60Hz			
<b>Operating Mode:</b>	Transmitting ASK modulation ISO Tags.			
<b>Deviations:</b>	None			
<b>Comments:</b>	Antenna Port 4 is worst case. Using Huber Suhner antenna.			

<b>Test Specifications</b>	<b>Test Method</b>						
FCC 15.247:2010	ANSI C63.10:2009						
<b>Run #</b>	46	<b>Test Distance (m)</b>	3	<b>Antenna Height(s)</b>	1-4m	<b>Results</b>	Pass



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
3611.217	43.8	-1.3	1.3	15.0	3.0	0.0	Horz	AV	0.0	42.5	54.0	-11.5	EUT on Side, Low 902.75 MHz, Pwr 3293
1854.583	48.2	-5.8	1.3	332.0	3.0	0.0	Vert	AV	0.0	42.4	54.0	-11.6	EUT on Side, High 927.25 MHz, Pwr 3226
3611.017	43.0	-1.3	1.2	18.0	3.0	0.0	Vert	AV	0.0	41.7	54.0	-12.3	EUT Vertical, Low 902.75 MHz, Pwr 3293
1854.533	44.6	-5.8	1.3	241.0	3.0	0.0	Horz	AV	0.0	38.8	54.0	-15.2	EUT on Side, High 927.25 MHz, Pwr 3226
3611.000	38.7	-1.3	1.4	13.0	3.0	0.0	Vert	AV	0.0	37.4	54.0	-16.6	EUT on Side, Low 902.75 MHz, Pwr 3293
3661.050	38.3	-0.9	1.3	359.0	3.0	0.0	Horz	AV	0.0	37.4	54.0	-16.6	EUT on Side, Mid 915.25 MHz, Pwr 3204
3708.992	37.4	-0.6	1.3	350.0	3.0	0.0	Vert	AV	0.0	36.8	54.0	-17.2	EUT on Side, High 927.25 MHz, Pwr 3226
3611.059	37.8	-1.3	1.2	39.0	3.0	0.0	Vert	AV	0.0	36.5	54.0	-17.5	EUT Horizontal, Low 902.75 MHz, Pwr 3293
3661.000	37.0	-0.9	1.0	39.0	3.0	0.0	Vert	AV	0.0	36.1	54.0	-17.9	EUT on Side, Mid 915.25 MHz, Pwr 3204
3611.042	36.7	-1.3	1.0	50.0	3.0	0.0	Horz	AV	0.0	35.4	54.0	-18.6	EUT Vertical, Low 902.75 MHz, Pwr 3293
1805.517	40.6	-6.2	1.3	69.0	3.0	0.0	Vert	AV	0.0	34.4	54.0	-19.6	EUT on Side, Low 902.75 MHz, Pwr 3293
3709.058	34.7	-0.6	1.3	349.0	3.0	0.0	Horz	AV	0.0	34.1	54.0	-19.9	EUT on Side, High 927.25 MHz, Pwr 3226
1830.592	39.8	-6.0	1.3	67.0	3.0	0.0	Vert	AV	0.0	33.8	54.0	-20.2	EUT on Side, Mid 915.25 MHz, Pwr 3204
3611.025	34.7	-1.3	1.3	184.0	3.0	0.0	Horz	AV	0.0	33.4	54.0	-20.6	EUT Horizontal, Low 902.75 MHz, Pwr 3293
2745.800	35.0	-3.7	1.3	13.0	3.0	0.0	Vert	AV	0.0	31.3	54.0	-22.7	EUT on Side, Mid 915.25 MHz, Pwr 3204
4513.750	28.5	2.2	1.3	47.0	3.0	0.0	Vert	AV	0.0	30.7	54.0	-23.3	EUT on Side, Low 902.75 MHz, Pwr 3293
1805.467	36.7	-6.2	1.6	242.0	3.0	0.0	Horz	AV	0.0	30.5	54.0	-23.5	EUT on Side, Low 902.75 MHz, Pwr 3293
4636.175	27.0	2.9	2.0	349.0	3.0	0.0	Vert	AV	0.0	29.9	54.0	-24.1	EUT on Side, High 927.25 MHz, Pwr 3226
4513.783	27.5	2.2	1.3	241.0	3.0	0.0	Horz	AV	0.0	29.7	54.0	-24.3	EUT on Side, Low 902.75 MHz, Pwr 3293
4633.725	26.8	2.9	1.3	349.0	3.0	0.0	Horz	AV	0.0	29.7	54.0	-24.3	EUT on Side, High 927.25 MHz, Pwr 3226
4577.867	26.8	2.7	1.3	92.0	3.0	0.0	Vert	AV	0.0	29.5	54.0	-24.5	EUT on Side, Mid 915.25 MHz, Pwr 3204
4577.875	26.8	2.7	3.5	332.0	3.0	0.0	Horz	AV	0.0	29.5	54.0	-24.5	EUT on Side, Mid 915.25 MHz, Pwr 3204
1830.600	35.2	-6.0	1.3	235.0	3.0	0.0	Horz	AV	0.0	29.2	54.0	-24.8	EUT on Side, Mid 915.25 MHz, Pwr 3204
2708.317	32.3	-3.6	1.3	40.0	3.0	0.0	Horz	AV	0.0	28.7	54.0	-25.3	EUT on Side, Low 902.75 MHz, Pwr 3293
3610.942	49.0	-1.3	1.3	15.0	3.0	0.0	Horz	PK	0.0	47.7	74.0	-26.3	EUT on Side, Low 902.75 MHz, Pwr 3293
2781.742	31.1	-3.8	1.3	20.0	3.0	0.0	Vert	AV	0.0	27.3	54.0	-26.7	EUT on Side, High 927.25 MHz, Pwr 3226
3611.009	48.4	-1.3	1.2	18.0	3.0	0.0	Vert	PK	0.0	47.1	74.0	-26.9	EUT Vertical, Low 902.75 MHz, Pwr 3293
2745.808	30.6	-3.7	1.3	360.0	3.0	0.0	Horz	AV	0.0	26.9	54.0	-27.1	EUT on Side, Mid 915.25 MHz, Pwr 3204
2708.333	30.4	-3.6	1.3	72.0	3.0	0.0	Vert	AV	0.0	26.8	54.0	-27.2	EUT on Side, Low 902.75 MHz, Pwr 3293
1854.525	51.9	-5.8	1.3	332.0	3.0	0.0	Vert	PK	0.0	46.1	74.0	-27.9	EUT on Side, High 927.25 MHz, Pwr 3226
2784.217	29.2	-3.8	2.8	148.0	3.0	0.0	Horz	AV	0.0	25.4	54.0	-28.6	EUT on Side, High 927.25 MHz, Pwr 3226
3661.075	45.9	-0.9	1.3	359.0	3.0	0.0	Horz	PK	0.0	45.0	74.0	-29.0	EUT on Side, Mid 915.25 MHz, Pwr 3204
3611.242	45.9	-1.3	1.4	13.0	3.0	0.0	Vert	PK	0.0	44.6	74.0	-29.4	EUT on Side, Low 902.75 MHz, Pwr 3293
3708.975	44.6	-0.6	1.3	350.0	3.0	0.0	Vert	PK	0.0	44.0	74.0	-30.0	EUT on Side, High 927.25 MHz, Pwr 3226
3611.067	44.9	-1.3	1.2	39.0	3.0	0.0	Vert	PK	0.0	43.6	74.0	-30.4	EUT Horizontal, Low 902.75 MHz, Pwr 3293
1854.417	49.3	-5.8	1.3	241.0	3.0	0.0	Horz	PK	0.0	43.5	74.0	-30.5	EUT on Side, High 927.25 MHz, Pwr 3226
3661.058	44.4	-0.9	1.0	39.0	3.0	0.0	Vert	PK	0.0	43.5	74.0	-30.5	EUT on Side, Mid 915.25 MHz, Pwr 3204
4513.558	41.0	2.2	1.3	47.0	3.0	0.0	Vert	PK	0.0	43.2	74.0	-30.8	EUT on Side, Low 902.75 MHz, Pwr 3293
3610.875	44.4	-1.3	1.0	50.0	3.0	0.0	Horz	PK	0.0	43.1	74.0	-30.9	EUT Vertical, Low 902.75 MHz, Pwr 3293
3708.958	43.3	-0.6	1.3	349.0	3.0	0.0	Horz	PK	0.0	42.7	74.0	-31.3	EUT on Side, High 927.25 MHz, Pwr 3226
4578.350	39.9	2.7	3.4	332.0	3.0	0.0	Horz	PK	0.0	42.6	74.0	-31.4	EUT on Side, Mid 915.25 MHz, Pwr 3204
4635.583	39.5	2.9	2.0	349.0	3.0	0.0	Vert	PK	0.0	42.4	74.0	-31.6	EUT on Side, High 927.25 MHz, Pwr 3226
4513.467	39.9	2.2	1.3	241.0	3.0	0.0	Horz	PK	0.0	42.1	74.0	-31.9	EUT on Side, Low 902.75 MHz, Pwr 3293
4574.400	39.5	2.6	1.3	92.0	3.0	0.0	Vert	PK	0.0	42.1	74.0	-31.9	EUT on Side, Mid 915.25 MHz, Pwr 3204
3611.034	43.3	-1.3	1.3	184.0	3.0	0.0	Horz	PK	0.0	42.0	74.0	-32.0	EUT Horizontal, Low 902.75 MHz, Pwr 3293
4638.192	39.1	2.9	1.3	349.0	3.0	0.0	Horz	PK	0.0	42.0	74.0	-32.0	EUT on Side, High 927.25 MHz, Pwr 3226
1805.858	48.2	-6.2	1.3	69.0	3.0	0.0	Vert	PK	0.0	42.0	74.0	-32.0	EUT on Side, Low 902.75 MHz, Pwr 3293
1830.617	47.0	-6.0	1.3	67.0	3.0	0.0	Vert	PK	0.0	41.0	74.0	-33.0	EUT on Side, Mid 915.25 MHz, Pwr 3204
2745.992	44.1	-3.7	1.3	13.0	3.0	0.0	Vert	PK	0.0	40.4	74.0	-33.6	EUT on Side, Mid 915.25 MHz, Pwr 3204
2782.117	43.4	-3.8	1.3	20.0	3.0	0.0	Vert	PK	0.0	39.6	74.0	-34.4	EUT on Side, High 927.25 MHz, Pwr 3226
2708.083	42.8	-3.6	1.3	40.0	3.0	0.0	Horz	PK	0.0	39.2	74.0	-34.8	EUT on Side, Low 902.75 MHz, Pwr 3293
2707.983	42.7	-3.6	1.3	72.0	3.0	0.0	Vert	PK	0.0	39.1	74.0	-34.9	EUT on Side, Low 902.75 MHz, Pwr 3293
2780.275	42.4	-3.8	2.8	148.0	3.0	0.0	Horz	PK	0.0	38.6	74.0	-35.4	EUT on Side, High 927.25 MHz, Pwr 3226
1805.317	44.8	-6.2	1.6	242.0	3.0	0.0	Horz	PK	0.0	38.6	74.0	-35.4	EUT on Side, Low 902.75 MHz, Pwr 3293
2744.317	42.0	-3.7	1.3	360.0	3.0	0.0	Horz	PK	0.0	38.3	74.0	-35.7	EUT on Side, Mid 915.25 MHz, Pwr 3204
1830.575	44.2	-6.0	1.3	235.0	3.0	0.0	Horz	PK	0.0	38.2	74.0	-35.8	EUT on Side, Mid 915.25 MHz, Pwr 3204